

COMPLETE LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for providing heat spreading applying heat spreaders to a plurality of plasma display panelspanel which comprises discharge cells, wherein in the absence of a heat sink the heat spreader is effective at spreading heat across a plurality of the discharge cells, wherein the heat spreader comprises comprising (a) providing a plurality of heat spreader composites, each of which comprises a heat spreader material comprising at least one or more sheets sheet of compressed particles of exfoliated graphite which conduct heat along the plane of the one or more sheets of compressed particles of exfoliated graphite, the heat spreader, the heat spreader composites each having an adhesive thereon; further whereinand a release material is positioned such that the adhesive is sandwiched between the one or more sheets of compressed particles of exfoliated graphite heat spreader material and the release material, and wherein the adhesive achieves a minimum lap shear adhesion strength of at least about 125 grams per square centimeter; (b) and the method includes (a) removing the release material from a plurality of the composites; and (c) (b) applying the one or more sheets of compressed particles of exfoliated graphiteat least one of the composites to each of the plurality of a plasma display panels panel each such that the one or more sheets of compressed particles of exfoliated graphite overlays a plurality of the discharge cells and the adhesive adheres the one or more sheets of compressed

particles of exfoliated graphite heat spreader material to the plasma display panel sufficiently to maintain the one or more sheets of compressed particles of exfoliated graphite such that the heat spreader material is maintained in position regardless of the orientation of the plasma display panel when the panel assumes a variety of orientations.

2. (currently amended) The method of claim 1 wherein the release material and adhesive are selected to permit a predetermined rate of release of the release material without causing undesirable damage to the one or more sheets of compressed particles of exfoliated graphite heat spreader material.

3. (canceled)

4. (previously presented) The method of claim 1 wherein the average release load is no greater than about 10 grams per centimeter at a release speed of one meter per second.

5. (canceled)

6. (currently amended) The method of claim 1 wherein the adhesive achieves an average lap shear adhesion strength of at least about 125 700 grams per square centimeter.

7. (currently amended) The method of claim 1 wherein the adhesive results in an increase in through thickness thermal resistance ~~of the adhesive/heat spreader material~~ of not more than about 35% as compared to the one or more sheets of compressed particles of exfoliated graphite material itself.

8. (original) The method of claim 7 wherein the thickness of the adhesive is no greater than about 0.5 mils.

9. (original) The method of claim 8 wherein the thickness of the adhesive is no greater than about 0.25 mils.

10. (canceled)

11. (canceled)

12. (currently amended) The method of claim 1 wherein the one or more sheets of compressed particles of exfoliated graphite ~~heat spreader material~~ comprises a laminate comprising a plurality of sheets of compressed particles of exfoliated graphite.

13-23 (canceled)

24. (currently amended) A method for providing heat spreading to a display panel comprising applying a heat spreader to a collection of heat sources~~sources, the method of heat spreading comprises comprising~~ (a) providing a heat spreader ~~comprising composite having two major surfaces and a thickness between the major surfaces, which comprises a heat spreader material comprising at least one or more sheets~~ sheet of compressed particles of exfoliated graphite, ~~each heat spreader composite having an adhesive thereon and;~~ (b) providing a release material positioned such that the adhesive is sandwiched between the one or more sheets ~~sheet of compressed particles of exfoliated graphite~~ heat spreader material and the release material, ~~wherein the adhesive achieves a minimum lap shear adhesion strength of at least about 125 grams per square centimeter;~~ (b) (c) removing the release material ~~from the composite;~~ and (e) (d) applying the composite one or more sheets of compressed particles of exfoliated graphite such that it overlays to a plurality of heat source sources, wherein the one or more sheets of compressed particles of exfoliated graphite conduct heat along the plane of the one or more sheets of compressed particles of exfoliated graphite and further wherein in the absence of a heat sink the heat spreader is effective at spreading heat across a plurality of the heat sources such that the adhesive adheres the heat spreader material to the heat source.

25. (original) The method of claim 24 wherein the adhesive and release material provide an average release load of no greater than about 40 grams per centimeter at a release speed of one meter per second.

26. (original) The method of claim 25 wherein the average release load is no greater than about 10 grams per centimeter at a release speed of one meter per second.

27. (canceled)

28. (currently amended) The method of claim 24 wherein the adhesive achieves an average lap shear adhesion strength of at least about 125 700 grams per square centimeter.

29. (currently amended) The method of claim 24 wherein the adhesive results in an increase in through thickness thermal resistance of the adhesive/heat spreader material of not more than about 35% as compared to the one or more sheets of compressed particles of exfoliated graphite heat spreader material itself.

30. (original) The method of claim 29 wherein the thickness of the adhesive is no greater than about 0.5 mils.

31. (original) The method of claim 30 wherein the thickness of the adhesive is not greater than about 0.25 mils.

32. (canceled)

33. (canceled)

34. (currently amended) The method of claim 24 wherein the one or more sheets sheet of compressed particles of exfoliated graphite heat spreader material comprises a laminate comprising a plurality of sheets of compressed particles of exfoliated graphite.

35. (currently amended) The method of claim 1, wherein the heat spreader ~~material~~ is at least about 270 millimeters by about 500 millimeters in area.

36. (currently amended) The method of claim 1, wherein the image area of the plasma display panel has an area of is at least about 1 meter, measured from ~~form~~ corner to corner.

37. (currently amended) The method of claim 24, wherein the heat spreader ~~material~~ is at least about 270 millimeters by about 500 millimeters in area.

38. (newly added) A heat spreader for a plasma display panel which comprises discharge cells, comprising one or more sheets of compressed particles of exfoliated graphite having a pressure sensitive adhesive thereon, wherein the adhesive achieves a minimum lap shear adhesion strength of at least about 125 grams per square centimeter such that the adhesive adheres the one or more sheets of compressed particles of exfoliated graphite to the plasma display panel sufficiently to maintain the one or more sheets of compressed particles of exfoliated graphite in position regardless of the orientation of the plasma display panel.

39. (newly added) The heat spreader of claim 38 wherein the adhesive achieves an average lap shear adhesion strength of at least about 700 grams per square centimeter.

40. (newly added) The heat spreader of claim 38 wherein the adhesive results in an increase in through thickness thermal resistance of not more than about 35% as compared to the one or more sheets of compressed particles of exfoliated graphite itself.

41. (newly added) The heat spreader of claim 40 wherein the thickness of the adhesive is no greater than about 0.5 mils.

42. (newly added) The heat spreader of claim 41 wherein the thickness of the adhesive is no greater than about 0.25 mils.

43. (newly added) The heat spreader of claim 38 wherein the one or more sheets of compressed particles of exfoliated graphite comprises a laminate comprising a plurality of sheets of compressed particles of exfoliated graphite.

44. (newly added) A method for providing heat spreading to a display device comprising a collection of heat sources, comprising applying a heat spreader to the collection of heat sources so as to overlay a plurality of the heat sources, wherein in the absence of a heat sink the heat spreader is effective at spreading heat across a plurality of the heat sources, and further wherein the heat spreader comprises one or more sheets of compressed particles of exfoliated graphite which conduct heat along the plane of the one or more sheets of compressed particles of exfoliated graphite.

45. (newly added) The method of claim 44 wherein the display panel comprises an emissive display device.

46. (newly added) The method of claim 45 wherein the display panel comprises a plasma display panel and the heat sources comprise discharge cells.

47. (newly added) The method of claim 44 wherein the one or more sheets of compressed particles of exfoliated graphite comprises a laminate comprising a plurality of sheets of compressed particles of exfoliated graphite.

48. (newly added) The method of claim 24 wherein the display panel comprises an emissive display device.

49. (newly added) The method of claim 48 wherein the display panel comprises a plasma display panel and the heat sources comprise discharge cells.

50. (newly added) The method of claim 24 wherein the one or more sheets of compressed particles of exfoliated graphite comprises a laminate comprising a plurality of sheets of compressed particles of exfoliated graphite.